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10/511,762	10/19/2004	Hiroyuki Katata	1152-0311PUS1	6715
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EXAMINER CHU, RANDOLPH I				
ART UNIT		PAPER NUMBER		
2624				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/511,762

Applicant(s)

KATATA ET AL.

Examiner

RANDOLPH CHU

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 10, 13, 15-20 and 25-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 31 is/are allowed.
- 6) ☒ Claim(s) 13, 15-20, 25-30 and 32-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/4/2008.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

1. Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 16 recites a recoding medium comprising an image portion and a header portion which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. Non-functional

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descriptive is non-statutory regardless of whether it is claimed as residing on a computer readable medium.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13, 15-18, and 25-29 are rejected under 35 USC 103(a) as being unpatentable over Yamamoto et al. (US Patent 6,784,917) in view of Swift et al. (US 2002/0122585).

With respect to claim 13, Yamamoto et al. teaches a decoding means for decoding the coded joined image data; (Fig. 7, col. 6 lines 59-65); a 2-dimensional display image generating means for generating a 2-dimensional display image, from the decoded joined image data based on the decoded 2-dimensional display image information. (Fig 7, ref. no. 23);

Yamamoto et al. does not teach expressly that a demultiplexing means for extracting from coded data being input, the coded joined image data and information representing how a 2 dimensional display image is generated from the joined image

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data and a 2-dimensional display image generating method decoding means for decoding the information.

Swift et al. teaches a demultiplexing means for extracting, from coded data being input, the coded joined image data and information representing how a 2 dimensional display image is generated from the joined image data (Fig. 9 and 10, VRR file has script and plurality of information and in order to manipulate and display demultiplexing is required) and a 2-dimensional display image generating method decoding means for decoding the information. (para. [0027], Fig. 1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to decode 2-dimensional display image generating method in the method of Yamamoto et al.

The suggestion/motivation for doing so would have been that to provide seamless support for monoscopic (2D) viewing mode allowing delivery of said stereoscopic media in a normal 2D viewing mode.

Therefore, it would have been obvious to combine Swift et al. with Yamamoto et al. to obtain the invention as specified in claim 13.

With respect to claim 15, the 2-dimensional display image is a miniaturized image for displaying a plurality of the joined images data in a menu representation (Fig 10, 1010 thumbnail).

With respect to claim 17, Yamamoto et al. teaches storing a plurality of coded images data corresponding respectively to a plurality of viewpoints; (Fig. 1 ref. no. 13a, 13b and 20; Fig 3);

Yamamoto et al. does not teach expressly that an image data portion for storing encoded joined image data, encoded joined image data being generated by joining a plurality of images data corresponding respectively to a plurality of viewpoints and by encoding tile joined image data and a header portion for storing header information with respect to the encoded joined image data and header portion stores stereo image identification information that represents the fact that the coded data constitutes a stereo image made up of the plurality of images data and information indicating a method of generating a 2-dimentional display image from the coded data.

Swift et al. teaches an image data portion for storing encoded joined image data, encoded joined image data being generated by joining a plurality of images data corresponding respectively to a plurality of viewpoints (Fig. 17) and by encoding the joined image data, a header portion for storing header information with respect to the encoded joined image data and header portion stores stereo image identification information that represents the fact that the coded data constitutes a stereo image made up of the plurality of images data and information indicating a method of generating a 2-dimentional display image from the coded data. (Fig 10, para. [0027] [0051] and [0061], Fig. 1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to store stereo image identification information in the method of Yamamoto et al.

The suggestion/motivation for doing so would have been that to provide seamless support for monoscopic (2D) viewing mode allowing delivery of said stereoscopic media in a normal 2D viewing mode.

Therefore, it would have been obvious to combine Swift et al. with Yamamoto et al. to obtain the invention as specified in claim 17.

With respect to claims 18, Yamamoto et al. teaches header information is stored in the image data portion (Fig. 10).

With respect to claim 25, Yamamoto et al. teaches a joining means for joining the plurality of images data using a predetermined joining method (Fig. 1 ref. no. 13a, 13b and 20; Fig 3); and

Swift et al. teaches a 2-dimensional display image generating method coding means for encoding a 2-dimensional display method of representing how a 2-dimensional display image data is generated from the joined image data (para. [0027], Fig. 1), wherein the recording area (Fig. 10) includes:
an image recording sector for recording the joined image data or the 2-dimentional image data (Fig 10, 1004, 1006); an audio recording sector for recording an audio data

(Fig 10, 1012); and a subcode sector for recording an associated information (Fig 10, 1002).

With respect to claim 26, Yamamoto et al. teaches a joining means for joining the plurality of images data using a predetermined joining method (Fig. 1 ref. no. 13a, 13b and 20; Fig 3); and

Swift et al. teaches a 2-dimensional display image generating method coding means for encoding a 2-dimensional display image generating method representing how a 2-dimensional display image data is generated from the joined image data (para. [0027], Fig. 1), wherein the recording area (Fig. 10) includes an image recording sector for recording the joined image data or the 2-dimentional image data (Fig 10, 1004, 1006); and a coded data of the 2-dimensional display image generating method is recorded in the image recording sector (Fig 10, 1002, para. [0027], Fig. 1).

With respect to claim 27, Yamamoto et al. teaches a joining means for joining the plurality of images data using a predetermined joining method (Fig. 1 ref. no. 13a, 13b and 20; Fig 3); and

Swift et al. teaches a 2-dimensional display image generating method coding means for encoding a 2-dimensional display image generating method of how a 2-dimensional display image is generated from the joined image data (para. [0027], Fig. 1), wherein the recording area (Fig. 10) includes an audio recording sector for recording an audio data (Fig 10, 1012); and a coded data of 2-dimensional display image

generating method is recorded in the audio recording sector (Fig 10, 1002, para. [0027], Fig. 1).

With respect to claim 28, Yamamoto et al. teaches a joining means for joining the plurality of images data using a predetermined joining method (Fig. 1 ref. no. 13a, 13b and 20; Fig 3); and

Swift et al. teaches a 2-dimensional display image generating method coding means for encoding a 2-dimensional display image generating method of representing how a 2-dimensional display image data is generated from the joined image data (para. [0027], Fig. 1), wherein the recording area (Fig. 10) includes a subcode sector for recording an associated information, and a coded data of 2-dimensional display image generating image is recorded in the subcode recording sector. (Fig 10, 1002, para. [0027], Fig. 1).

With respect to claims 29, Yamamoto et al. teaches multiplexing to the coded data (fig 1. ref no. 3).

3. Claims 19-20 and 30 are rejected under 35 USC 103(a) as being unpatentable over Yamamoto et al. (US Patent 6,784,917) in view of Swift et al. (US 2002/0122585) and in further view of Iizuka et al. (US 2002/0054207).

With respect to claim 19 and 20 Yamamoto et al. in view of Swift et al. teaches all the limitations of claim 13 as applied above from which claim 19 and 20 respectively depend.

Yamamoto et al. in view of Swift et al. does not teach expressly that a display means capable of switching between a stereo representation and a 2-dimensional representation and automatic switching is done between the stereo representation and the 2-dimensional representation.

Iizuka et al. teaches a display means capable of switching between a stereo representation and a 2-dimensional representation and automatic switching is done between the stereo representation and the 2-dimensional representation (para [0233]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to switch between stereo representation and 2D representation automatically in the method of Yamamoto et al. in view of Swift et al.

The suggestion/motivation for doing so would have been that when display device does not have capability to display stereo representation or user desired 2D image, switching to 2D image is desirable.

Therefore, it would have been obvious to combine Iizuka et al. with Yamamoto et al. in view of Swift et al. to obtain the invention as specified in claim 19 and 20.

With respect to claim 30, please refer to rejection for claim 19.

4. Claims 32-37 are rejected under 35 USC 103(a) as being unpatentable over Yamamoto et al. (US Patent 6,784,917) in view of Swift et al. (US 2002/0122585) and in further view of Iizuka et al. (US Patent 7,064,754).

With respect to claim 32-37, Yamamoto et al. in view of Swift et al. teaches all the limitations of claims 13, 17, and 25-28 as applied above from which claims 32-37 respectively depend.

Yamamoto et al. in view of Swift et al. does not teach expressly that the 2-dimensional display image generating method further represents an inversion direction of the image data that should be used.

Iizuka et al. teaches the 2-dimensional display image generating method further represents an inversion direction of the image data that should be used (col. 31 lines 17-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to represent an inversion direction of the image data in the method of Yamamoto et al. in view of Swift et al.

The suggestion/motivation for doing so would have been that to realize the effects and the method of storage differ between inversion direction and basic setting.

Therefore, it would have been obvious to combine Iizuka et al. with Yamamoto et al. in view of Swift et al. to obtain the invention as specified in claim 32-37.

Allowable Subject Matter

1. Claims 10 and 31 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 10 is allowable over the prior art of record because none of the prior art of record teaches the combined claimed elements as set forth in the claim 10.

None of the prior art of record teaches or fairly suggests that image processing apparatus for coding a plurality of image data corresponding to plurality of viewpoints that 2-dimensional display image generating method coding means for coding a 2-dimensional display image generating method representing how 2-dimensional display image is generated from joined image data, joined image is generated according to an arrangement position of the image data that should be joined and an inversion direction of the image data that should be joined, and together with combination of other claimed elements as set forth in the independent claim 10. Therefore, the claim 10 is over the prior art of records.

Claim 31 is allowed because they are depended on independent claim 10.

Any comments considered necessary by applicant must be submitted no later than payment of the issue fee and, to avoid processing delay, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randolph Chu whose telephone number is 571-270-1145. The examiner can normally be reached on Monday to Thursday from 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Matthew C Bella/

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Supervisory Patent Examiner, Art Unit 2624